Manitoba
Agriculture

nformation Update

Guidelines For Estimating
Backgrounding Costs
For Weight Range of 500 - 900 lbs
Based on 500 Head

DATE: September, 2001

The following budget is an estimate of the costs of production associated with backgrounding feeder calves. The purpose of this budget is to assist Manitoba livestock producers to calculate their own costs and take into consideration the factors that should be included when budgeting to determine breakeven prices.

Backgrounding generally refers to the assembling, feeding and managing calves from weaning until they are put onto a high concentrate finishing ration. In general calves fed from weaning to 800-900 lbs are referred to as backgrounded feeders. An example of a typical backgrounding operation would be, feed 500 pound steers to gain 1.75 - 2.75 lbs per day for approximately 100 - 200 days to produce 800-900 lbs backgrounded feeders.

The assumptions on which costs are calculated are clearly defined in the supporting pages. When interpreting these costs for an individual situation, adjustments may be required. Note that on-farm feed costs are based on market prices at the farm. It is assumed that all feed is grown on the farm, except for supplements. Each assumption must be examined and adjustments made, where necessary, to apply to the producer's own situation.

Backgrounding Cattle Production Cost Summary 2001

A. Operating Costs	Cost/Head	Total Cost	Your Cost
1. Feed Costs			
1.01 Ground Barley	58.93	29,465	
1.02 Barley Silage	73.44	36,720	
1.03 Hay	2.20	1,100	
1.04 Supplement	17.20	8,600	
Total Feed Costs	**$151.77**	**$75,885**	
2. Other Operating Costs			
2.01 Feeder Cost	861.25	430,625	
2.02 Straw	6.40	3,200	
2.03 Veterinary Medicine & Supplies	15.08	7,540	
2.04 Annual Fuel & Repair Costs	4.50	2,250	
2.05 Utilities	5.40	2,700	
2.06 Feeder Selling Cost	27.00	13,500	
2.07 Insurance	6.22	3,110	
2.08 Manure Removal	5.40	2,700	
2.09 Barn & Office Supplies	0.32	160	
2.10 Death Loss	14.38	7,191	
Subtotal Operating Costs	1,097.72	548,861	
2.11 Operating Interest	32.20	16,101	
Total Operating Costs	**$1,129.92**	**$564,962**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	5.29	2,645	
3.02 Machinery & Equipment	12.00	6,000	
4. Investment			
4.01 Buildings	2.59	1,293	
4.02 Machinery & Equipment	3.60	1,800	
Total Fixed Costs	**$23.48**	**$11,738**	
Total Operating and Fixed Costs	**$1,153.40**	**$576,700**	
C. Labour	$20.00	$10,000	
Total Cost of Production	**$1,173.40**	**$586,700**	

Cost per lb of gain sold	$/cwt	
Feed Costs	$43.86	
Operating Costs	$80.90	
Operating & Fixed Costs	$87.69	
Total Costs	$93.47	
Breakeven Selling Price		
Operating Costs	$133.56	
Operating & Fixed Costs	$136.34	
Total Costs	$138.70	

Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 500 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 160.
4. Investment in facilities and equipment was assumed to handle 500 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			**Your Cost**
1. Feed Costs			
1.01 Ground Barley			
	160	days on ground barley	_____
x	6.50	lbs/feeder/day	_____
=	21.7	bushels fed	_____
x	$2.72	/bu	_____
=	**$58.93**	**/feeder**	_____
1.02 Barley Silage			
	160	days on silage	_____
x	34	lbs/feeder/day	_____
=	2.72	tons fed	_____
x	$27.00	/ton	_____
=	**$73.44**	**/feeder**	_____
1.03 Hay			
	15	days on hay	_____
x	5.0	lbs/feeder/day	_____
=	0.04	tons fed	_____
x	$55.00	/ton	_____
=	**$2.20**	**/feeder**	_____
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			_____
	160	days on supplement	_____
x	1.00	lbs/feeder/day	_____
=	0.08	tons fed	_____
x	$215.00	/ton	_____
=	**$17.20**	**/feeder**	_____

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$5.00	/feeder	_____
Trucking-in	$1.25	/cwt	_____
x	500	lbs/feeder	_____
÷	100	lbs/cwt	_____
=	$6.25	/feeder	_____
Feeder	500	lbs/feeder	_____
x	$170.00	/cwt	_____
÷	100	lbs/cwt	_____
=	$850.00	/feeder	_____
Total =	**$861.25**	**/feeder**	_____

2.02 Straw

	4.0	lbs/feeder/day	_____
x	160	days on feed	_____
x	$20.00	/ton	_____
=	**$6.40**	**/feeder**	_____

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$5.40	IBR,BVD,PI3,BRSV,etc.	_____
+	$0.64	Vitamin A-D	_____
+	$3.00	External & Internal Parasites	_____
+	$0.55	Blackleg	_____
+	$1.61	Growth Implants	_____
+	$1.50	Antibiotics	_____
=	$12.70	/feeder	_____

Herd Health Program

Professional Services

	$90.00	/hour charge	_____
x	10.00	hours	_____
÷	500	feeder cattle	_____
=	$1.80	/feeder	_____

Transportation Costs

	$0.90	/km charge	_____
x	80	kilometres	_____
x	4	visits	_____
÷	500	feeder cattle	_____
=	$0.58	/feeder	_____

Total =	**$15.08**	**/feeder**	

2.04 Annual Fuel & Repair Costs

	$900.00	repairs	
+	$1,350.00	fuel costs	
÷	500	feeder cattle	
=	**$4.50**	**/feeder**	

2.05 Utilities

	$2,700.00	cost/year	
÷	500	feeder cattle	
=	**$5.40**	**/feeder**	

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	
÷	100	lbs/cwt	
x	$1.25	trucking cost/cwt	
=	$11.25	/feeder	

Selling Commission

	$15.00	commission	
+	$0.75	insurance	
=	$15.75	/feeder	

Total =	**$27.00**	**/feeder**	

2.07 Insurance

	$133,790	building & equipment investment	
x	$0.60	/$100 capital	
÷	100	/$100	
÷	500	feeder cattle	
=	$1.61	/feeder	
	$505,000	herd investment	
x	$0.45	/$100 capital	
÷	100	/$100	
÷	500	feeder cattle	
=	$4.55	/feeder	
	$30.00	additional coverage for liability	
÷	500	feeder cattle	
=	$0.06	/feeder	

Total =	**$6.22**	**/feeder**	_____

2.08 Manure Removal

	$2,700	annual removal cost	_____
÷	500	feeder cattle	_____
=	**$5.40**	**/feeder**	_____

2.09 Barn & Office Supplies

	$160.00	total barn expenses	_____
÷	500	feeder cattle	_____
=	**$0.32**	**/feeder**	_____

2.10 Death Loss

	$861.25	feeder cattle cost	_____
+	$1,056.34	maximum value	_____
÷	2	average	_____
x	1.50	% mortality rate	_____
=	**$14.38**	**/feeder**	_____

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$861.25	feeder cost	_____
+	$118.24	½ of feed & other costs	_____
x	7.50	% operating interest	_____
x	160	days on feed	_____
÷	365	days /year	_____
=	**$32.20**	**/feeder**	_____

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$4,200	
Pens	$3,542	
Handling Facilities	$4,000	
Waterers	$4,000	
Gates	$1,280	
Feeders	$1,500	
Bunk Feeders	$18,768	
Well & Pressure System	$3,500	
Grain Bin	$3,000	
Landscaping	$15,000	
Total	**$58,790**	
Machinery & Equipment		
Tractor & Loader	$50,000	
Miscellaneous	$25,000	
Total	**$75,000**	
Total Investment	**$133,790**	

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$58,790	original cost	
-	$5,879	salvage value	
÷	20	years useful life	
÷	500	feeder cattle	
=	**$5.29**	**/feeder**	

3.02 Machinery & Equipment

	$75,000	original cost	
-	$15,000	salvage value	
÷	10	years useful life	
÷	500	feeder cattle	
=	**$12.00**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$58,790	original cost	_____
+	$5,879	salvage value	_____
÷	2	average	_____
x	4.00	% investment rate	_____
÷	500	feeder cattle	_____
=	**$2.59**	**/feeder**	_____

4.02 Machinery & Equipment

	$75,000	original cost	_____
+	$15,000	salvage value	_____
÷	2	average	_____
x	4.00	% investment rate	_____
÷	500	feeder cattle	_____
=	**$3.60**	**/feeder**	_____

C. Labour

	2.0	hours/feeder/year	_____
÷	$10.00	/hour	_____
=	**$20.00**	**/feeder**	_____

Breakeven Calculations

Cost per lb of gain sold (shrunk weight)			
Feed Costs		$151.77	feed cost
	÷	346	lbs gained weight
	=	**$0.44**	**/lb (gain sold)**
Operating Costs		$1,129.92	operating costs
	-	$850.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.81**	**/lb (gain sold)**
Operating & Fixed		$1,153.40	operating & fixed costs
	-	$850.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.88**	**/lb (gain sold)**
Total Costs		$1,173.40	operating & fixed costs
	-	$850.00	feeder cost
	÷	346	lbs gained weight
	=	**$0.93**	**/lb (gain sold)**
Breakeven selling price (shrunk weight)			
Operating Costs		$1,129.92	operating costs
	÷	846	lbs shrunk weight
	=	**$1.34**	**/lb**
Operating & Fixed		$1,153.40	operating costs
	÷	846	lbs shrunk weight
	=	**$1.36**	**/lb**
Total Costs		$1,173.40	operating costs
	÷	846	lbs shrunk weight
	=	**$1.39**	**/lb**

For more information contact your local Manitoba Agriculture and Food Office.

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Backgrounding Feedlot Facilities